

LUXCOR GOLD, L.P.
FANCHER PROJECT
PLAN OF OPERATIONS

Purpose and Scope. This Plan of Operations describes the Fancher Project (the Project) proposed by Luxcor Gold, L.P. (Luxcor). This Plan of Operations is submitted to comply with 43 CFR 3809, *Surface Management for Unpatented Mining Claims and Sites Situated on Land Administered by the Bureau of Land Management*.

Project Overview. The mine is located on federal lode mining claims in northern Yuma County, about 100 miles west of Phoenix, Arizona, as shown in Figure 1, Location Map. The area has been extensively disturbed by past mining and exploration, beginning in the 1930s and continuing until the present. The Project also includes use of Verdstone Road (a.k.a. Verdstone Mine Road) and Hovatter Road between the mine and the mill site as access and haul roads.

The planned operation is to extract about 60,000 tons of gold ore by underground mining methods and to haul the ore to the Rio del Monte Mine (private property) near Salome for processing by gravity and flotation. Luxcor has an agreement with the owner to use the site for milling and tailings disposal. Doré bars will be produced on site from recovered free gold. Carbonate concentrates containing gold and silver will be sold to a smelter or concentrate buyer and processed off site.

Bulk sampling of the orebody was completed in January, 2009 under Notice AZA 34595. This work included driving a 468 foot decline to gain access to the orebody, extraction of a bulk sample, and temporary closure of the adit.

The existing decline will be used for primary access to the orebody. A second entrance, to be used as a ventilation raise and escape way, will be constructed by raise boring. Mobile buildings for an office/change house and shop/storage building will be located on a previously-disturbed site along the existing Verdstone Road about 1000 feet north of the decline. A watchman's RV or trailer will be located in the same area to provide security for the mine and protect the public from mine-related hazards.

A portion of an adjacent waste rock dump and open pit left by a previous operator will be reclaimed during the first year of operation to compensate for Sonoran desert tortoise habitat disturbed by the Project.

Work will begin as soon as this Plan of Operations has been approved and a mining contractor can be mobilized. The operation, including reclamation, should be complete within about three years from start-up.

Occupancy, as defined in 43 CFR 3715, will be required for mine facilities including the office/change house unit, shop/storage unit, watchman's trailer, explosives magazines, decline and raise, water and fuel tanks, mining equipment, road use and gates.

The Project will be designed and operated to minimize potential direct, indirect, and cumulative impacts related to the resources discussed below. Table 1 shows resources with potential to be impacted by the Project, and the development and operating practices that will be used to minimize those impacts.

TABLE 1 - ENVIRONMENTAL PROTECTION PRACTICES REVIEW

POTENTIALLY AFFECTED RESOURCE	ENVIRONMENTAL PROTECTION PRACTICES
<u>SOCIO-ECONOMICS</u>	Hire from local area workforce where possible.
<u>AIR</u>	Implement dust control measures such as road watering and treatment. No crushing, screening or processing done at the mine site. Dust from crushing and screening at the mill site will be controlled by water sprays.
<u>WATER</u>	Install storm water diversions and controls to minimize erosion and sedimentation. Test ore, waste rock and tailings for acid rock drainage, leaching of metals. Use any mine water encountered for dust control. Store fuel, lubricants, solvents with secondary containment. Clean up spills immediately. Recycle ~70% of the water at the mill site.
<u>LAND/SOILS</u>	Use existing roads for access and haul roads and disturbed areas for mine and mill facilities where possible. Stockpile soil for revegetation.
<u>VEGETATION</u>	Minimize new disturbance to limit vegetation damage.
<u>WILDLIFE</u>	Minimize new disturbance to limit habitat degradation.
<u>SPECIAL STATUS SPECIES</u>	Train workers to recognize and protect special status species. Reclaim a portion of habitat disturbed by a previous operator.
<u>VISUAL RESOURCES</u>	Remove temporary structures; recontour roads, adit, raise and waste rock dump to blend with topography during reclamation. Remove milling equipment and cover tailings with soil. Revegetate disturbed areas.
<u>LIVESTOCK</u>	Minimize new disturbance. Cattle will not be excluded from the Project area.
<u>CULTURAL RESOURCES</u>	Avoid known cultural resources. Train workers to recognize and avoid cultural resources. If previously unknown cultural resources are found, isolate the area and obtain clearance before proceeding.
<u>RECREATION/PUBLIC SAFETY</u>	Minimize new disturbance. Exclude public only from operations area. Fill and close adit and raise during reclamation.

1.0 Claimant and Operator Information.

The claimants are:

Robert L. and Linda M. Fancher
2203 Heatherbrae Drive
Phoenix, AZ 85016.

The operator is:

Luxcor Gold, LP
5215 – 126 Street
Edmonton, Alberta T6H 3W5
Canada
ATTN: Jim W. Clark

Luxcor's contact person is:

Jim W. Clark
Telephone: (780) 993-3118; Fax: (780) 401-3370; email: jimclark@luxcor.ca.

Luxcor's Federal Tax Identification Number is 98-0575774.

Luxcor holds the claims through an Agreement for Sale of Mining Claims and Escrow Instructions with Robert L. and Linda M. Fancher (Claimants), dated 12 December, 2008. This agreement is included in Appendix A.

Luxcor has an agreement with Steve and Cherie Murphy, owners of the Rio del Monte Mine, to use a portion of their property for milling and tailings disposal.

2.0 Claims, Location, Access, Area Description.

2.1 Claims. The proposed mine lies within a group of 10 contiguous lode mining claims belonging to Claimants. A map and list of the claims with claim numbers and county recording information are included in Appendix A.

Surface and underground workings will be located on Verdstone 2 and Verdstone 4. The waste rock dump/ore loading area will also be located on Verdstone 4. The office and shop area will be located on Verdstone 1.

2.2 Location. The mine is located in the Little Horn Mountains, Sheep Tanks Mining District, in Section 10, T1S, R14W, Yuma County, Arizona, about 100 miles west of Phoenix and 30 miles south of Salome (see Figure 1). The mine location is 113°41'30" W longitude, 33°21'40" N latitude, on the USGS Cementosa Wash 7.5 Minute Quadrangle Sheet. The access and haul roads lie in Yuma and La Paz Counties, between the mine and mill sites, as shown in Figures 2A through E. The combined length of the roads is about 30 miles.

2.3 Access. Access to the mine site and mill site is via existing roads (see Figures 2A through 2E) that do not have approved rights-of-way. These roads are Verdstone Road in Yuma County, and Hovatter Road in Yuma and La Paz Counties. La Paz County has applied for a BLM right-of-way to cover Hovatter Road from the Yuma County line to

Salome, BLM Case File No. AZA 35697. Hovatter Road also crosses approximately 4580 feet of State Trust Land between I-10 and the mine site. Luxcor has applied for a state right-of-way (Application Number 18-115503) for this portion of the road. The application is included in Appendix A.

2.3.1 Mine site. Access to the mine is via I-10 to its junction with Hovatter Road (Exit 53) about 90 miles west of Phoenix, then south and west 22 miles on Hovatter Road to Verdstone Road. The mine site is about 1 mile north of Hovatter Road via Verdstone Road.

Hovatter Road is maintained by La Paz County from I-10 to the Yuma County line, about 2.7 miles east of Verdstone Road. Luxcor will maintain Hovatter and Verdstone Roads from the county line to the mine. The road will be maintained by filling washouts, grading and watering. Road maintenance will be within the existing footprint of the roads and will be limited to a maximum width of 20 feet.

2.3.2 Mill site. The mill site is located at the Rio del Monte Mine along Hovatter Road about 7.5 miles north of I-10 in Section 4, T4N, R13W. Access is directly from Hovatter Road. Hovatter Road is maintained by La Paz County from I-10 to Salome. The short existing road connecting Hovatter Road to the mill site is on private land and will be maintained by Luxcor.

2.4 Area Description.

2.4.1. Mine site. The mine lies on the north and northwest side of Hill 1968 in the Little Horn Mountains. The mine area is within a broad valley with low relief formed by Cementosa Wash and its tributaries. Cementosa Wash lies about 0.6 miles southwest of the existing adit. The mine is about four miles east of the Kofa National Wildlife Refuge and is screened from view from the refuge by higher topography to the west. The elevation of the adit is 1709 feet.

There are no residences within five miles of the mine. The area is remote and is not zoned by Yuma County. The mine is exempt from county regulation under ARS 11-830, the “Mining & Metallurgical Exemption.”

The adjacent Verdstone open pit, mined in the 1990s, and associated waste rock dump, roads and facilities site are only partially reclaimed. The Verdstone pit and dump are shown in Figures 3 and 4 respectively. Unreclaimed drill access roads constructed by a previous operator are also present in the mine area and can be seen in Figure 5. One of these roads will be used to provide access to the ventilation raise. Verdstone Road passes close to the existing Fancher adit and the area planned for the office and shop facilities.

There is no surface water on or near the mine except for ephemeral flows in washes following precipitation. The depth to ground water is not known, but no water is in evidence in the bottom of the Verdstone pit at an elevation of 1625 feet. No water was encountered in drill holes in the vicinity of the decline that penetrated to an elevation of 1450 feet, or at the bottom of the decline at 1668 feet. Since the elevation of the planned workings is not expected to be lower than 1550 feet, no ground water is anticipated.

Vegetation is sparse, consisting primarily of palo verde and mesquite trees; creosote and brittlebush shrubs; saguaro, ocotillo, staghorn and “teddy bear” cholla cactus; forbs and grasses.

The climate is semi-arid with hot summers and mild winters. The nearest reporting weather station is Kofa Mine, located about 17 miles SW at a similar elevation, which reported a maximum temperature of 119 deg. F in July, 1995 and a minimum temperature of 23 deg. in January, 1963. Average daily temperatures ranged from a low of 46 deg. in January to 104 deg. in July. Average annual precipitation is 6.94", with about 2" falling in each the winter, summer and fall seasons and about 1" in the spring. The highest recorded monthly rainfall was 7.55", which fell during September 1976. Temperature and precipitation summaries for this station are included in Appendix B.

2.4.2. Mill site. The mill site is on private land located on the north side of the Little Harquahala Mountains at an elevation of about 2000 feet. The mill site is 100% disturbed by a recent decorative stone and aggregate mining operation. The tailings disposal area is in a natural depression adjacent to the mill site and is partially disturbed by roads and waste rock disposal from recent operations. Vegetation and other natural features are similar to those at the mine site.

2.4.3 Roads. Verdstone and Hovatter Roads have been in use for many years to support mining, ranching, recreational and other uses. The existing roads average 22 to 24 feet in width. The natural setting along the roads is similar to that of the mine and mill sites except for an approximately eleven mile section where Hovatter Road crosses the Ranegras Plain. The Ranegras Plain is a gently-sloping, lower-lying area with poorly defined drainage and less vegetation than the surrounding hills, dominated by creosote bush.

2.5 Previous Operations.

2.5.1 Mine site. The following information was extracted from a paper entitled *Verdstone Mine History*¹ by Robert Lee Fancher, whose family has been associated with the Fancher property since its discovery, and a NI 43-101 compliant report prepared by J. E. Stockwell for Abington Ventures, Inc.² The Fancher paper is included in Appendix C.

According to Stockwell, the mine shares characteristics of gold-silver mineralization with other mines and properties in the district such as the Sheep Tanks (3.7 mi. WNW), the Allison (0.7 mi SW), the Oakland (0.6 mi. SSE) and the Verdstone (0.2 mi. NE). These deposits are very similar in age, and have epithermal alteration zones and structural controls related to green vein quartz hosted gold-silver mineralization. They have been of intermittent economic interest since discovery of the Sheep Tanks Mine in 1920, which reportedly produced 21,000 ounces of gold and 40,000 ounces of silver in the 1930s.

The Verdstone mine, adjacent to the proposed mine, was discovered in 1932 by Bob Davis (the claimant's step grandfather) and Charlie Diehl. At that time they were working at the near-by Oakland mine that Bob Davis had discovered a year earlier. In 1940, Robert K. Fancher, the claimant's father, mined 40 tons grading 0.46 ounces per ton (opt) gold and 4.7 opt silver. From 1962 to 1978, major work on the Verdstone included trenching and sinking of a 60 foot shaft.

From 1982 to 1984, Rea Gold leased the Verdstone property and drilled 31 core holes and 30 reverse-circulation (RC) holes to define the Verdstone orebody. Homestake Mining leased the property in 1988 and drilled 56 additional RC holes. Cyprus Amax

¹ 2002, Fancher, Robert Lee, Verdstone Mine History

² 2003, Stockwell, J.E., Report on the Diamond Drilling Programme, May 2003 and Mineral Resource Estimate for the V3w Prospect on the Verdstone Property, Sheep Tanks Mining District.

leased the property in 1989 and drilled 126 RC holes, including 10 on the proposed mine site. None of these companies did any mining.

In 1993, Cyprus Amax sub-leased the Verdstone property to Verdstone Gold, Inc., which developed the Verdstone pit (see Figures 3 and 4) and underground workings (now collapsed). Mining at Verdstone consisted of the open-pit, with the pit bottom about 80 feet below surface. The ore zone was then mined eastward and southward by room and pillar underground mining. The pillars were then mined beginning at the extremities of the orebody and retreating toward the entrance, allowing the hanging wall to collapse. The ore was shipped to the Copperstone Mine north of Quartzite, where it was heap leached, and to the Cyprus smelter in Miami, where it was used as flux and the gold and silver recovered. Production was believed to be about 500,000 tons with an average grade of 0.5 opt gold.

In 2002, Abington Ventures leased the Fancher mine area (which they called V3w) and drilled six core holes in 2003. The purpose of the core holes was to confirm the presence of mineralization indicated by previous Cyprus Amax RC holes. The program confirmed the presence of mineralized zones with gold and silver values associated with quartz filled breccias. The mineralized zone was identified as an elongate tabular body about 24,000 sq. ft. in plan striking ENE-WSW, dipping 20° SSE, with its upper contact situated between elevations of 1560 and 1610 feet. According to Stockwell, the zone's apparent thickness thins from a maximum of 45 feet to 2 feet towards the SW, and remains open at 30-40 feet on the west, north and east sides. The zone lies about 350 feet south of the waste pile of the Verdstone Mine. Their resource estimate is:

- indicated ore: 37,700 tons at 0.219 opt Au, totaling 8,240 ounces
- inferred ore: 23,100 tons at 0.147 opt Au, totaling 3,400 ounces

In December 2008 and January 2009, Luxcor developed a 468 foot decline to gain access to the orebody and extracted a 1000 lb. bulk sample. The adit was temporarily closed in March 2009. This work included development of a waste rock dump and soil stockpile, as shown in Figure 6. Total surface disturbance was about 0.6 acre.

Luxcor drilled three core holes in June 2009 to test for a northern extension of the orebody. These holes did not encounter the ore zone. The geological interpretation by F. Marshall Smith, geologist, is that the holes are just north of a fault that cuts the orebody off on the north side. This fault was also encountered in the decline.

2.5.2 Mill site. The Rio del Monte Mine where the mill site is located has been the site of exploration for and small-scale mining of precious and base metals since 1900 or earlier. The mine was patented in 1907. Many shafts, adits, exploration pits and mine dumps are located on the mine. Recently, a portion of the property was used for production of decorative stone and aggregate.

2.5.3. Roads. Hovatter Road was reportedly built in about 1950. Verdstone Road was built later to provide a shorter route from Hovatter Road to the Verdstone Mine than existing roads. Hovatter Road crosses two pipeline rights-of-way (one on BLM land with three buried gas lines and one on state land with one buried gas line), two power line rights-of-way with overhead power lines, a buried transmission line right-of-way with buried fiber optic cable, a canal right-of-way at the Central Arizona Project canal, and a transportation right-of-way where it crosses I-10.

3.0 Description of Operations.

3.1 Roads. Ore will be hauled from the mine to the mill and concentrate from the mill to I-10 over Verdstone and Hovatter Road. Hovatter Road, from the mill site to the La Paz-Yuma County line, is county maintained and is in excellent condition. Hovatter Road is not county maintained from the county line to Verdstone Road (about 2.66 miles). Verdstone Road from Hovatter Road to the mine (about 1.08 miles) is not county maintained.

The roads from the county line to the mine will be maintained as needed by Luxcor. These roads are typically 20 to 30 feet wide (average 22 feet). Road maintenance will be done within the footprint of the existing roads to a maximum of 20 foot width. An existing drill road will be used to provide access to the ventilation shaft collar. This road is typically 10 to 15 feet wide. The road will be widened to about 17 feet where required to allow for placement of a 2 foot high berm along the outer edge as required by Mine Safety and Health Administration (MSHA) rules³. Minor side hill cutting will be needed. Roads and location of proposed surface facilities are shown in Figures 7 (topographic map) and 8 (aerial photo). Existing disturbed areas are readily visible in Figure 8.

Luxcor has been in contact with El Paso Natural Gas Company (EPNG) which owns and operates the gas lines crossed by Hovatter Road. Correspondence with EPNG is included in Appendix D. With the assistance of Aztec Engineering and under the supervision of EPNG, Luxcor determined the depth of cover for the four pipelines that cross Hovatter Road. The line on state land (L2000) has 5.4 feet of cover and requires only 5.0 feet. The three lines on BLM land (L1100, 1103 and 1600) require 5.5 feet of cover and have 2.82, 1.87 and 2.08 feet respectively.

To meet EPNG requirements, Luxcor can either add fill to the roadway over the three pipelines or place one-inch thick steel plates over the pipelines in accordance with a sketch provided by EPNG (see Appendix D). Luxcor plans to use the fill alternative.

3.2 Mine Development. The existing adit area, including the waste rock dump and soil stockpile, is shown in Figure 9. The dump will be leveled and expanded slightly to accommodate waste from mine development, as shown in Figure 10. A utilities pad, located just east of the adit and a sediment pond, located west of the waste rock dump, are also shown in Figure 10.

The office/change house and shop/storage mobile buildings will be set up in a disturbed area about 1200 feet north of the adit. A portion of the adjacent area will be used for parking and equipment laydown. A small generator, water tank and sediment pond will be placed within the disturbed area. A RV or trailer for a mine watchman will be parked in the same area. This area, which was used for Verdstone mine facilities, has been partially reclaimed. Figure 11 is an oblique aerial photo of the area and Figure 12 is a ground level photo. The proposed buildings and other facilities are shown in Figure 13.

³ Code of Federal Regulations Title 30, Mineral Resources, Part 56 Safety and Health Standards, Surface Metal and Nonmetal Mines

The existing adit will be reopened and additional rock support will be installed in the decline to prepare it as the haulage way. Support will include rockbolts, mesh and shotcrete as needed. Compressed air, electrical and water lines will be installed along the rib in the decline and extended as needed into the stope. A vent fan will be placed temporarily on the dump next to the adit until the raise and permanent vent fan installation has been completed. Air will be carried to the working face through a vent tube mounted on the rib.

The haulage way will then be extended about 225 feet ESE into the ore zone as shown in Figure 14. The haulage way will be nominally 10 feet wide by 12 feet high, developed within the ore zone. A work station about 30 feet x 30 feet in plan will be developed on the north side of the haulage way for a raise.

A ventilation raise/escape way will be developed by raise boring. A 20 x 20 foot pad will be excavated at the surface to remove loose material and create a level working area. The material removed will be stockpiled nearby to be used to reclaim the raise site. The surface location of the raise and the pad are shown in Figures 15 and 16.

The boring machine will be set up on the pad. A 12 inch pilot hole will be drilled by the boring machine from the surface to the underground work station. The boring machine will then ream the raise to a six foot diameter by drawing a reaming head from the underground work station to the surface. Drill cuttings will fall downward and will be transported by scoop tram to the waste dump. The raise will then be lined with six inches of shotcrete, giving a finished diameter of five feet. The boring contractor estimates that the raise boring machine will be on site for about two weeks.

If raiseboring proves infeasible due to weak and caving rock, the raise will be completed by drilling and blasting, followed closely by rockbolting, wire mesh and shotcrete as needed to stabilize the walls. The raise will be equipped with ladders with platforms every thirty feet to complete the escape way.

A concrete pad, approx. 20'x 18'x 6" will be poured around the raise collar to provide a foundation for a vent fan and a safe entry way. The fan will be installed on the pad and an air tube installed from the fan down the raise into the underground workings to ventilate the mine. The power cable for the fan will run from the generator through the haulage way and up the raise in conduit. A wood or steel cover will be installed over the raise with a 3'x 3' door for man entry and holes for the vent fan and conduit. The pad and facilities are shown in Figure 17.

Mine development drilling will be done using pneumatic jackleg drills, either hand operated or on a drilling jumbo. Ammonium nitrate/fuel oil (ANFO) blasting agent with a dynamite booster will be used for blasting. A scoop tram will load the broken rock, haul it out of the mine and dump it on the rock dump located outside the portal. About 2500 tons of ore will be removed to develop the haulage way and raise station and 650 loose cubic yards of waste rock will be excavated to develop the raise. The waste rock

will be added to the existing waste rock dump and the ore will be piled on the dump top for trucking to the mill. The dump will be expanded by about 0.09 acres (see Figure 10).

During mine development, Luxcor will disturb about 0.8 acres of undisturbed Sonoran desert tortoise habitat. To compensate for this, Luxcor will reclaim a portion of the waste rock dump and open pit at the adjacent Verdstone Mine, abandoned in the 1990s. This reclamation will include flattening of a steep slope on the waste rock dump and filling a portion of the ramp into the open pit. Details of this work are included in Appendix E.

3.3 Mining. Luxcor will employ a mining contractor to mine the orebody using the stope and pillar mining method. This method is one of the oldest mining methods and is especially suited for small, irregular ore bodies with varying ore grades and back (roof) conditions. Pillars are left as required to support the back on an irregular or semi-regular pattern. Lower-grade rock may be left preferentially as pillars where there is a choice. Luxcor plans to mine at the rate of 200 tons per day. Adit area surface facilities are shown in Figure 18.

Although the mineralized zone varies in thickness up to perhaps 40 feet, the economic deposit is limited to a 10 to 12 foot thick ore zone just below the hanging wall. The plan is to mine only the ore zone.

The ore will be mined by developing a crosscut perpendicular to the haulage way to the north and south limits of the orebody, then mining parallel to the haulage way toward the east and west limits of the orebody, as shown in Figure 19.

Ore will be drilled using jackleg pneumatic drills and/or a drilling jumbo (wheel or track mounted multi-drill machine). Hole size will be about 2". Drill holes will be blasted using ammonium nitrate/fuel oil (ANFO) blasting agent with a dynamite booster. Explosives usage will be about 100 lbs. per day.

The scoop tram will haul the ore to the surface and dump it into ore piles located on the waste rock dump (see Figure 18). Ore from different areas of the mine will be dumped into different piles so that the ore can be blended during loading to provide a more uniform feed grade to the mill. Ore will be loaded into trucks by a front-end loader. The trucks, with a capacity of about 25 tons, will be covered and the ore hauled to the mill for processing. About eight truckloads of ore will be hauled to the mill each day.

Rockbolts will be installed in the back and ribs as needed for safety. Steel mesh and shotcrete will be used to augment the rock bolts where needed, especially along the haulage way and the area around the raise.

When the orebody has been mined to its limits, as shown in Figures 20 (plan) and 21 (section), additional ore will be obtained by removing pillars where economically justified and where the back will stand unsupported for the short time needed to remove the pillar. The pillars farthest from the entrance will be removed first, retreating toward the entrance. A proposed retreat sequence is shown in Figure 22.

As pillars are removed, the roof will collapse, with broken rock from the hanging wall filling the opening. Broken rock occupies about 1.5 times as much space as solid rock (a typical swell factor for broken rock is 1.5:1). A 12 foot high excavation and collapsed area above will fill completely by the time the collapse reaches about 36 feet above the floor. Since the surface is over 200 feet above the excavation, the collapse will not reach the surface. The outline of the known orebody on topography is shown in Figure 23. Since the hill is unlikely to be developed for any purpose after mining, minor subsidence over time, should it happen, would not affect future surface use.

The mining contractor will work two eight to ten hour shifts per day, five to seven days per week. Three miners and a safety man/supervisor will work each shift.

Typical equipment to be used is listed in Table 2, below. Since the mining contractor has not been selected, equipment could vary slightly. Mine equipment will be diesel-fuelled and filled from an on-site tank. Pick-ups and ore haul trucks will be fuelled off-site at commercial stations.

TABLE 2. MINING EQUIPMENT LIST

NO.	MINING EQUIPMENT
1	Drilling jumbo
3	3 yard Scoop Tram
4	Pneumatic rock drills
1	Pneumatic hole charger
1	Mobile compressor, 750 cfm, 150 psi
1	Mobile generator, 500kVA
1	Front-end Loader, 4 cu. yd. bucket
2	Haul truck, 25 t capacity
1	Vent fan
Lot	Ventilation tubing
1	Office/change house trailer 8'x40'
1	Shop/storage trailer 8'x 40'
2	Explosives magazines 8'x 10'
1	Shotcrete mixer
2	Pick-up trucks
1	Lowboy trailer
1	Water tank, 4000 gal.
1	Water pump and electric motor
1	Dual-containment 7000 gal fuel tank
Lot	Water and air lines, electrical cable
Lot	Safety equipment and tools

Possible permits for the mine site and their status is:

- Aquifer Protection Permit (APP). Luxcor applied for and received a Determination of Applicability (DOA) from the ADEQ stating that the waste

dump (overburden stockpile) at the mine must be covered under a 2.02 General Permit. The DOA and supporting documents are included in Appendix F.

- **Air Quality Permit.** The mine requires a Class II Air Quality Permit because the combined brake horsepower of internal combustion engines for the compressor and generator will exceed the permit threshold. Regulated pollutants emitted at the mine are particulates (PM) and fine particulates (PM₁₀ and PM_{2.5}), plus nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon monoxide (CO). Drilling will be wet and underground so particulate emissions will be essentially zero. An Air Quality Permit application is being prepared for the mine. This and the permit will be submitted to the BLM when received. Mine emissions modeled using USEPA SCREEN3 model are shown in Table 3, below. Emissions at the Process Area Boundary are well below National Ambient Air Quality Standards.

TABLE 3. MINE AIR EMISSIONS

EMISSION TYPE	MAX. ¹ CONC. (µg/m ³)	PAB ² CONC. (µg/m ³)	NAAQS ³ (µg/m ³)
Annual NO _x	19	0.25	100
24 hr. PM ₁₀	6.8	1.3	150
Annual PM ₁₀	1.4	0.26	[a]
24 hr. PM _{2.5}	5.5	0.19	35
Annual PM _{2.5}	1.10	0.038	15
1 hr. SO ₂	0.22	0.0029	200
24 hr. SO ₂	0.089	0.0012	365
Annual SO ₂	0.018	0.0002	80
1 hr. CO	235	3.0	40,000
8 hr. CO	165	2.1	10,000

[a] Annual PM₁₀ standard (formerly 50 µg/m³) was revoked 12/17/2006.

¹ Maximum concentration conservatively calculated as the sum of the maximum predicted point source and maximum predicted area source concentrations.

² Process area boundary assumed to be 20m from point sources and center of area source.

³ National Ambient Air Quality Standards, USEPA Office of Air and Radiation 7/1/2011

The complete air quality study by Four Peaks Environmental and Engineering, LLC, is included in Appendix G.

- **Arizona Pollutant Discharge Elimination System (AZPDES) General Permit for Stormwater Discharges Associated with Industrial Activity – Mineral Industry to Waters of the United States 2010 (MSGP 2010).** Coverage under this permit is required for the mine site for precipitation runoff from the waste dump and the shop area. Coverage is obtained by preparing a Storm Water Pollution Prevention Plan (SWPPP), controlling potentially impacted runoff as required in the SWPPP, and filing a Notice of Intent (NOI) with the ADEQ. The SWPPP is retained on site and is not submitted to the ADEQ unless state-designated impaired or outstanding waters could be impacted, which is not the case at the mine site.

Luxcor is currently covered under AZPDES General Permit AZCON-41330 for development of the decline and has a SWPPP for that activity. Luxcor has also prepared a new SWPPP for mine operations and will submit a NOI for coverage under MSGP 2010 once runoff control measures have been installed. A copy of the NOI will also be submitted to the BLM.

- Section 404 Permit. Luxcor will construct the mine and facilities on uplands and will not dredge or fill Waters of the United States under the jurisdiction of the Corps of Engineers. A 404 Permit is therefore not required.

3.4 Ancillary Facilities. A compressor to supply compressed air for drilling; a generator to supply electricity for lighting, vent fan and mining equipment; a 4000 gallon water tank and a 7000 gallon dual-containment diesel tank will be located on the utilities pad just east of the adit (see Figure 18). The diesel tank will supply fuel to the generator, compressor, and mobile diesel equipment. A serviced, portable toilet will be placed near the adit.

Electrical distribution will be by electrical cable from the generator to the adit and into the mine. Electrical cable will be suspended from rock bolts along the rib. The electrical cable to supply the vent fan will run up the raise to the fan.

Compressed air and about 500 gallons of water will be needed per day for drilling. Compressed air and water lines will be laid on the surface to the adit and will be suspended from rock bolts along the rib in the mine. Water will be obtained from a private well and hauled to site in a 4000 gallon water truck by a contractor.

Diesel consumption is expected to be about 100 gallons per day. Diesel fuel will be hauled to site by the fuel vendor in 5000 gallon tank trucks.

Ammonium nitrate and dynamite will be stored in a Bureau of Alcohol, Tobacco, Fire Arms and Explosives-approved magazine, located on the east side of the Verdstone dump (see Figures 7 and 8). This location is remote from other operations, is hidden from roads and is behind the gate on the Verdstone Road. Blasting caps will be stored in a separate magazine located at the prescribed distance from the high explosives magazine. Explosives usage is expected to be about 100 lbs. per day.

An 8'x 40' office/change house trailer, an 8'x 40' shop/storage trailer and a watchman's RV or trailer will be located at the former site of similar ancillary facilities for the Verdstone mine, located just north of Verdstone Road (see Figure 13). An existing septic tank and leach field at this location will be used for sanitary waste. A small generator will be used to supply power for lighting, water heating and air conditioning.

Equipment will be maintained at the work site or the shop. Major repairs will be done off-site.

3.5 Processing. Ore from the Fancher Mine will be hauled approximately 30 miles to a mill site at Rio del Monte Mine via Verdstone Road and Hovatter Road. The mill site is located on 392 acres of patented land adjacent to Hovatter Road, five miles south of Salome, Arizona, as shown in Figure 24. Figure 25 is a site map.

Metallurgical testing by Metcon, Inc. revealed that the gold is generally fine (~90% <150 mesh). The planned process includes crushing, grinding and gravity separation to produce a free gold concentrate and flotation to produce a carbonate concentrate with gold and silver values. A preliminary mill flowsheet is shown in Figure 26. No cyanide or other toxic reagents will be used in the process. Material Safety Data Sheets for the flotation reagents were provided to the ADEQ for Determination of Applicability for the APP.

Mill tailings will be deposited in a natural depression just north of the mill. The owner will use natural topography and constructed berms to confine the tailings to an impoundment in the form of a strip approximately 1100 feet long by 150 feet wide, with an average depth of ten feet. As the tailings are deposited, the solids settle out and the water flows to the low point of the impoundment, from which it is pumped back to the mill. Tailings will be deposited in this impoundment to a depth of eight feet, and when milling is complete, capped with two feet of compacted local fill. The owner plans to use the level strip thus created as a landing field for light aircraft. Figure 27 shows plan and cross-section views of the tailings impoundment.

Luxcor has several options for milling equipment. The equipment given below is appropriate for the crushing, grinding, gravity recovery and flotation process. Actual equipment may be slightly different although the process will not change.

TABLE 4. MILLING EQUIPMENT LIST

NO.	MILLING EQUIPMENT
1	Mobile crushing/screening plant including:
	Primary crusher
	Secondary crusher
	Screen
	Internal conveyors
	Output conveyor
1	Ball mill, 6'x 6'
1	Spiral classifier
2	Concentrating tables, 6'x 15'
1	Centrifugal concentrator
4	Agitated flotation cells
1	Vacuum concentrate filter
1	Tailings thickener
3	Centrifugal pumps and piping
1	Crucible and propane burner
1	Front-end loader, 4 yd.
1	Mobile generator, ~460 kVA
1	Office/lab trailer
1	Fuel tank, 7000 gal. above-ground dual containment
1	Water tank, 30,000 gal.

About 34 gallons per minute (gpm) of new and reclaimed water will be required at the planned throughput of 200 tons per day. Water losses include about 20% temporarily tied-up in the tailings and 10% evaporation. About 70%, 24 gpm, will be recovered and re-used in the process. New water required will be about 10 gpm, continuous. Rio del Monte Mine has wells on site but the yield is unknown. These wells will be tested and if additional water is needed, Luxcor will drill a new well on the Rio del Monte property.

An electric generator driven by an approximately 500 hp diesel engine will provide power for the milling equipment.

The free gold concentrate will be smelted on-site using a small propane burner and crucible. The doré (gold/silver) bars will be transported by light vehicle to a secure off-site location as they are produced, and shipped from there to a refiner. About 100 Troy ounces of doré could be produced per day at the production rate of 200 tons per day (tpd).

Carbonate concentrate will be sent to a smelter or sold to a concentrate buyer. About 10 tons of concentrate are expected to be produced per day at 200 tpd mill feed.

Possible permits for the mill site and their status are:

- Aquifer Protection Permit (APP). Luxcor applied for and received a Determination of Applicability (DOA) from the ADEQ stating that the ore and

tailings are inert materials and do not require a permit under the APP program (see Appendix F).

- **Air Quality Permit.** A Class II Air Quality Permit will be required for the mill because the combined brake horsepower for the generator and crusher internal combustion engines will exceed the permit threshold. Regulated pollutants emitted at the mill are particulates (PM) and fine particulates (PM₁₀ and PM_{2.5}), plus nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon monoxide (CO). Although average mill throughput will be determined by mine production, the maximum plant throughput was assumed to be 400 tons/10 hour day to allow for mill catch-up following down time or fewer mill operating days. Mill emissions modeled using USEPA SCREEN3 model are shown in Table 5, below. Emissions at the Process Area Boundary are well below National Ambient Air Quality Standards (see Appendix G for complete study).

TABLE 5. MILL AIR EMISSIONS

EMISSION TYPE	MAX. ¹ CONC. (µg/m ³)	PAB ² CONC. (µg/m ³)	NAAQS ³ (µg/m ³)
Annual NO _x	15	0.19	100
24 hr. PM ₁₀	24	18	150
Annual PM ₁₀	4.8	4.6	[a]
24 hr. PM _{2.5}	7.3	6.9	35
Annual PM _{2.5}	1.5	1.4	15
1 hr. SO ₂	0.11	0.0014	200
24 hr. SO ₂	0.045	0.0006	365
Annual SO ₂	0.009	0.0001	80
1 hr. CO	177	2.3	40,000
8 hr. CO	124	1.6	10,000

[a] Annual PM₁₀ standard (formerly 50 µg/m³) was revoked 12/17/2006.

¹ Maximum concentration conservatively calculated as the sum of the maximum predicted point source and maximum predicted area source concentrations.

² Process area boundary assumed to be 20m from point sources and center of area source.

³ National Ambient Air Quality Standards, USEPA Office of Air and Radiation 7/1/2011

The above calculated emissions are uncontrolled. PM and PM₁₀ emissions at the mill will be controlled by water sprays at key material transfer points, which will lower actual emissions by about 90%. An Air Quality Permit application is being prepared for the mill. This and the permit will be submitted to the BLM when received.

- **AZPDES Mining GP 2010.** Coverage under this permit is required for the mine site for precipitation runoff from the mill area. Coverage is obtained by preparing a Storm Water Pollution Prevention Plan (SWPPP), controlling potentially impacted runoff as required in the SWPPP, and filing a Notice of Intent (NOI) with the ADEQ. The SWPPP is retained on site and is not submitted to the

ADEQ unless state-designated impaired or outstanding waters could be impacted, which is not the case at the mill site. Luxcor is preparing a SWPPP for the mill and will submit a NOI for coverage under MSGP 2010 once runoff control measures have been installed. A copy of the NOI will also be submitted to the BLM.

- Section 404 Permit. Luxcor will construct the mill and tailings impoundment on uplands and will not dredge or fill Waters of the United States under the jurisdiction of the Corps of Engineers. A 404 Permit is not required.

3.6 Water Management Plan.

3.6.1 Mine Site. About 500 gallons per day of water will be needed for underground drilling. This water will be hauled to site in a water truck and pumped into a 4000 gallon water tank near the adit. Drilling water will be lost to evaporation and wetting broken ore.

Ground water is not expected to be encountered in the underground workings, as explained in Section 2.4.1, above. Should ground water be encountered, it will be pumped to the water tank to be used for drilling.

The waste rock dump and soil stock pile will be sloped toward the hillside to prevent precipitation runoff from running over and eroding the dump/stockpile faces. Runoff will be diverted away from disturbed areas and directed to natural drainage. Runoff will be handled in accordance with the SWPPP.

3.6.2 Mill Site. About 34 gpm of new and reclaimed water will be required at a maximum throughput of 200 tons per day. Water losses include about 20% temporarily tied-up in the tailings and 10% evaporation. About 70%, 24 gpm, will be recovered at a pond at the low end of the tailings impoundment and re-used in the process. New water required will be about 10 gpm, continuous. New water will be obtained from existing wells or a new well at the Rio del Monte Mine. Runoff will be handled in accordance with the SWPPP.

3.7 Rock Characterization and Handling Plan. Hilltops at the mine site are covered by Malapai Basalt (~1 million years old) lying unconformably on altered dacite. The dacite is reddish brown to pale yellow in color due to alteration from a poly-lithic welded agglomerate lahar (~32 million years old). The lahar alteration is to yellow illite with hardness much less than the original lahar, but has no preferred jointing, no argillic alteration and remains dense and hard. The dacite is underlain by the ore zone, a gently-sloping vein of green quartz with black calcite and gold and silver mineralization.⁴

Waste will be generated primarily from the raise. The total quantity is anticipated to be less than 1000 tons, consisting primarily of basalt (about 12%) and altered dacite/illite (about 88%). Barren vein rock will be mined as the mine is developed, but most barren vein rock will be left un-mined as pillars.

Waste will be placed on the existing waste rock dump, increasing the dump size by about 0.09 acres. At the end of the mine life, much of the waste rock will be used to close the adit and the raise (see Section 6.0, Reclamation Plan).

⁴ 2010, Smith, F. Marshall, project geologist, private correspondence dated 2/25/10

Similar waste was mined from the Verdstone pit about 800 feet NE of the Fancher orebody in the mid-1990s and placed on the large dump near the pit (see Figures 4 and 8). After about 15 years, the dump shows no sign of acid drainage or sulfate leaching. Whitish areas on the dump that might be mistaken for salts are in fact white clay from the pit. Photos taken during an inspection of the toe of the dump in March 2010 by Mining & Environmental Consultants, Inc., Figures 28 and 29, do not reveal damage to vegetation or evidence of effluent from the dump.

Basalt, which covers much of the land surface in the mine vicinity, is considered chemically inert. Samples of ore, altered dacite waste rock from the decline and tailings from metallurgical tests were submitted to state-approved labs for ABA and SPLP tests to determine if the ore, waste rock, or tailings have the potential to generate acid over the long-term and to leach pollutants into the environment. Luxcor submitted these test results to the ADEQ for a Determination of Applicability (see Section 3.3, above). The results showed that the ore and tailings are inert material (no potential to generate acid or leach pollutants into the environment) and that the waste rock has the potential to leach arsenic slightly above Aquifer Water Quality Standards, requiring management of the runoff.

3.8. Quality Assurance Plans. Luxcor's quality assurance plans relate to ore grade and characteristics, waste rock characteristics, tailings characteristics, precipitation runoff quality, concentrate and doré quality.

3.8.1 Ore grade and characteristics. Ore grade will be determined at appropriate intervals by assay of chip samples from working faces and grab samples from ore stockpiles. Samples will be sent to a commercial lab along with "blanks" to check lab reliability. Occasional "splits" will be sent to another lab to verify assay precision.

Samples of ore have been tested by ABA and SPLP procedures as described above. During the course of mining, additional ABA and SPLP tests will be performed at intervals if required by the ADEQ to ensure that ore characteristics have not changed.

3.8.2 Waste rock characteristics. Samples of waste rock have been tested by ABA and SPLP procedures as described above. During the course of mining, additional ABA and SPLP tests will be performed at intervals if required by the ADEQ to ensure that waste rock characteristics have not changed.

3.8.3 Tailings characteristics. Tailings characteristics depend on ore characteristics and flotation reagents used. Samples of tailings have been tested by ABA and SPLP procedures as described above. During the course of milling, additional tests will be performed at intervals if required by the ADEQ to ensure that tailings characteristics have not changed.

3.8.4 Precipitation runoff quality. Precipitation runoff quality will be checked as described in the SWPPP for each site, by checking outfall points for evidence of turbidity or hydrocarbons entering natural water courses.

3.8.5 Concentrate and doré quality. Samples will be sent to commercial labs to determine gold and silver content prior to shipment to buyers. Metallurgical balances will be performed to calculate gold and silver recovery.

3.9 Spill Contingency Plan.

3.9.1 Mine Site. The only likely spills at the mine site are diesel fuel, lubricants and ANFO. Diesel fuel usage is expected to be about 100 gallons per day. Diesel fuel will be stored in an above-ground 7000 gallon dual containment tank with a leak detection system. With a 7000 gallon fuel tank, a delivery will be required about every three months. Rock drill oil and other petroleum products will be stored in closed containers inside the storage trailer. Alternatively, drums will be placed in a HDPE-lined sump with sufficient capacity to hold 125% of the maximum volume of products stored. Spills on public roads are the responsibility of the vendor/transporter. Luxcor will contract with Envirosolve, Inc., a hazardous waste clean-up, transportation and disposal firm located in Phoenix, to respond to spills off public roads that are beyond the capability of site personnel. Envirosolve has its own licensed hazardous waste disposal facility near Phoenix.

Soil contaminated by minor spills of petroleum products will be shoveled into drums by site personnel and disposed of at an approved off-site facility. Luxcor will keep two empty 55 gallon drums with shovels, booms and mats available for this use. Spills greater than 25 gallons, or spills less than 25 gallons that are not cleaned up in 24 hours, will be reported to the ADEQ at 602-771-2330 and to the BLM Yuma Field Office.

About 100 lbs. of ANFO will be used per day. ANFO will be delivered in 50 lb. bags or in 50 lb. cases of cartridges. ANFO will be delivered by the vendor every two to three months. ANFO is a mixture of fertilizer-grade ammonium nitrate pellets with about 6% fuel oil absorbed in the pellets. If a spill occurs during transportation or unloading, the ANFO will be shoveled into drums and transported to a waste disposal facility. ANFO spilled underground during blast hole loading will be shoveled into a bucket and removed from the mine to prevent possible migration into ground water. Spilled ANFO will be disposed of at an approved waste disposal facility.

3.9.2 Mill site. At the mill site, the only likely hazardous material spills are diesel fuel and lubricants. Diesel fuel usage is expected to be about 50 gallons per day. Diesel fuel will be stored in an above-ground, 7000 gallon, dual containment tank with a leak detection system. Fuel will be piped a short distance from the tank to the generator and crushing plant engines. Lubricants will be stored in their original containers within a secondary-containment cabinet.

The flotation reagents are non-hazardous and will be stored in their original containers. They will be transferred to the flotation cells by a small pumps or reagent feeders. Containers will be stored within a lined sump to prevent spills from being released to the environment. About 50 gallons of flotation reagents are expected to be used per month.

Spills of fuel, lubricants and reagents will be handled as described in 3.9.1 above for petroleum products.

3.10 Fire Plan.

3.10.1 Mine Site. MSHA requires that mobile mine equipment be equipped with fire extinguishers that are inspected monthly. In addition, fire extinguishers will be placed in the shop and office building, near the fuel tank, explosives magazine and at the top of the raise near the vent fan. Phone numbers for the closest fire departments (Salome, Quartzsite and Tonopah) will be posted in the office. Luxcor will provide maps

showing the mine location to all three and request that they be prepared to respond to fires and medical emergencies.

In the event of a fire, site personnel will report to the office for fire-fighting or evacuation instructions from the senior company/contractor person on site.

3.10.2 Mill site. Mobile equipment, the mill office, and crushing plant will be equipped with fire extinguishers. The McMullen Valley Fire District (Salome Fire Department) is located in Salome, five miles from the mill site. Luxcor will provide a map of the mill site and request their response for fires and medical emergencies.

In the event of a fire, site personnel will report to the office for fire-fighting or evacuation instructions from the senior company/contractor person on site.

3.11 Emergency Response Plan. In the event of an emergency, site personnel will report to the office for instructions from the senior company/contractor person on site. Calling 911 will bring response from the Yuma or La Paz County Sheriff who will dispatch emergency equipment and personnel. The coordinates of the mine site and mill site will be posted at the offices to direct medevac helicopters to the sites. A satellite phone will be located in the mine office. The mill site has cellular phone coverage.

Luxcor is a member of the San Juan Mine Rescue Cooperative of Ridgeway, Colorado. This organization is prepared to airlift a MSHA-certified mine rescue team to the mine in case miners are trapped underground. Emergency numbers will be posted at the mine and mill office and will include the San Juan Mine Rescue Cooperative, Arizona Department of Public Safety, Arizona Mine Inspector's Office, MSHA, BLM and Luxcor management.

All miners and mill workers will be trained as prescribed by MSHA per 30 CFR 48⁵, *Training and Retraining of Miners*, which includes fire-fighting, first aid and safety.

3.12 Storm Water Pollution Prevention Plans. Luxcor has a SWPPP for the mine site for the work previously authorized under the Notice, and has prepared a new SWPPP for mining operations for coverage under MSGP 2010. Luxcor will prepare a SWPPP for the mill site as required under MSGP 2010. SWPPPs are living documents, intended to be revised from time to time as needed. SWPPPs will be kept at the mine and mill sites as required under the permit.

3.13 Surface Disturbance. Road repair and maintenance will be done within the footprint of existing roads. Road work will not exceed 20 feet width, even where the existing road is wider. The existing drill road to be used for access to the raise will be widened only as necessary to allow for a 2 foot high safety berm along the outside edge as required by MSHA for mine roads. No other road cutting will be done.

Concrete pads will not be used except at the raise collar to provide safe entry and a foundation for the vent fan. Mobile buildings will be placed in a level area on natural ground surface. Surface runs of electrical, compressed air and water lines will be kept

⁵ Code of Federal Regulations Title 30 Mineral Resources Part 48 Training and Retraining of Miners

short. The electrical line to the vent fan will run through the mine workings rather than above ground.

Waste rock from the mine will be placed on the existing dump outside the adit to eliminate a haul road to a remote dump and to have the rock close at hand for closure and reclamation. Soil from the area to be disturbed by the waste rock dump extension will be removed and stockpiled on the existing soil stockpile adjacent to the adit for use in reclamation.

3.14 Waste Management. Due to the small size of the operation, both the mine and mill will generate small quantities of wastes. Materials will also be managed to minimize the amount of waste created and to ensure that uncontaminated materials do not become contaminated. A summary of these measures is provided below.

3.14.1 Solid Waste. All non-hazardous solid waste except tailings will be disposed of in the Quartzsite landfill or Salome transfer station. The mining contractor and Luxcor personnel will collect and dispose of these wastes as they are generated.

Mill tailings will be deposited in a natural basin adjacent to the mill as requested by the mill site owner.

1.14.2 Hazardous Waste. Hazardous wastes that may be generated at the mine and mill include, but may not be limited to, the following:

- Cleaning solvents
- Chemical wastes from the mill site laboratory
- Residue wastes in containers

Luxcor will apply for a hazardous waste identification number from the EPA and register as a generator of hazardous waste with ADEQ. Because of the very small quantities involved, Luxcor should qualify as a Conditionally Exempt Small Quantity Generator of hazardous wastes.

Waste will be stored on site and inspected as required by the hazardous waste regulations. As part of these pollution prevention activities, materials considered for purchase will be checked to determine if they have the potential to create hazardous waste. If they do, non-hazardous substitutes will be sought. The operations will be examined on an on-going basis to ensure that hazardous substances are eliminated whenever possible.

3.14.3 Sanitary Waste. At the mine site, a serviced portable toilet will be located adjacent to the adit. An existing septic system installed during operation of the Verdstone Mine will be used at the office/change house for sanitary wastes. The watchman's trailer will be equipped with a holding tank that will be emptied at a commercial dump station as required.

At the mill site, a serviced portable toilet will be located near the mill.

3.14.4 Specific Waste Management Activities, Mine and Mill. In general, waste will be managed in drums or other appropriate containers. Containers will be covered to prevent blowing trash.

Scrap metal will be collected in a pile and transported to a metal recycler when a load has been accumulated.

Waste oil and lubricants will be placed in drums or other containers for recycling. While on site, the containers will be stored in an area with secondary containment.

Lead acid batteries will be returned to the vendor or shipped to a recycler. While on site, they will be stored in an area protected from storm water with secondary containment. Nickel-Cadmium and lithium batteries will be stored in boxes for recycling.

Tires will be exchanged with the tire vendor when new tires are purchased.

Wood and packing materials will be collected, banded and transported to a recycler or disposal facility.

Luxcor will transport materials as required by the Resource Conservation and Recovery Act (RCRA) and Department of Transportation (DOT) regulations. Shipments will be properly marked and manifested (using manifests or bills of lading).

3.15 Noxious Weeds. Noxious weeds that appear at the mine or mill site will be controlled by hoeing.

3.16 General Schedule. Mine development will commence as soon as a contractor can be mobilized following approval of this Plan of Operations. Presently, a contractor could be on site within two weeks of plan approval. Mine development, including the raise, is expected to take about two months.

Identification of mill equipment has begun. Mill site development and equipment installation will begin at about the same time as mine development and is expected to be complete within two months.

Mining and milling will begin simultaneously, and are expected to be complete within three years unless additional ore is found. Mine site reclamation will begin as soon as mining is complete and will require about one month.

Mill site reclamation will begin as soon as milling operations are complete, which may be a month or so after the completion of mining if ore stockpiles remain to be processed. Mill site reclamation should also require about one month.

3.17 Public Safety and Site Security. A watchman will be employed to stay on the mine site at times when miners are not present. The watchman will have access to a satellite phone located in the office to call for assistance if needed. A gate will be installed on the road to the adit and the existing gate on the road to the office/shop area will be repaired. Signs will be posted on the gates and at other appropriate points to warn the public of mining hazards. The generator and compressor motors will be locked out when miners are not present.

The owner of the Rio del Monte mine lives on site and protects his property from casual visitors. A gate and warning signs will be installed on the road between Hovatter Road and the mill. The generator at the mill will be locked out when workers are not present to prevent unauthorized starting.

4.0 Transportation.

4.1 Mine Site. Vehicle transportation to the mine site is required primarily for miners, supervisors, fuel and lubricants, water, explosives, mining supplies, equipment and mobile buildings. Mining supplies consist primarily of drill steel and bits, rock bolts and mesh, bucket wear parts and other repair parts.

Ore will be transported from the mine to the mill and trash and other waste materials from the mine to disposal facilities. Vehicle traffic will be confined to Verdstone Road and Hovatter Road. Anticipated mine traffic is as shown in Table 6.

TABLE 6. MINE TRAFFIC

CARGO	ROUND TRIPS	FREQUENCY
Personnel	8	Daily
Ore trucks	12	Daily except weekends
Water for mine	1	Weekly
Water for roads	Variable*	Variable*
Fuel & lubricants	1	Monthly
Mining supplies	1	Monthly
Explosives	1	Every three months
Equipment	10	Beginning and end of operations
Mobile buildings	3	Beginning and end of operations

* Road watering will be done as needed. Dust palliatives will be used to bind dust particles to the road surface, which will decrease water use over time.

4.2 Mill Site. Vehicle transportation to the mill site is required primarily for ore, mill workers, supervisors, fuel and lubricants, reagents, water, mill supplies, equipment and mobile buildings. Mill supplies consist of grinding balls, mill and crusher liners, conveyor components and other repair parts.

Concentrates and doré bars will be transported from the mill site to purchasers. Trash and other waste materials will be transported to disposal facilities. Vehicle traffic will use Hovatter Road, which connects to I-10 at the Hovatter Road Exit and to US 60 at Salome. Anticipated mill traffic is shown in Table 7.

TABLE 7. MILL TRAFFIC

CARGO	ROUND TRIPS	FREQUENCY
Personnel	4	Daily
Ore trucks	12	Daily except weekends
Fuel & lubricants	1	Monthly
Mill supplies	1	Monthly
Flotation reagents	1	Every three months
Equipment	10	Beginning and end of operations
Mobile buildings	1	Beginning and end of operations
Concentrates/doré	1	Daily except weekends

5.0 Interim Management Plan.

Temporary closure is not anticipated but could be necessitated by heavy rains interfering with mine or mill traffic, break-down of key equipment, unavailability of fuel or key supplies, labor disputes, periods of low gold/silver prices or other unforeseeable events. Should temporary closure be required, Luxcor would notify the BLM Yuma Field Office of the closure, the reason for the closure and the expected duration of the closure. Specific measures that will be taken at the mine and mill sites are given below.

5.1 Mine Site. In the event that the mine should be closed for more than one month, Luxcor will take the following actions:

Mining equipment will be removed from site.

The adit will be temporarily closed using steel mesh rock bolted to the back, ribs and floor, as it is at present.

The door on the raise will be closed and locked or welded shut.

Tools, equipment, supplies and records will be removed from the office/change house and the shop/storage mobile building.

Explosives will be removed from the magazines.

The compressor and generator will be removed from site.

Berms will be built or boulders placed to block roads to the adit and the office/shop area.

The watchman will remove his trailer from site.

The gates will be locked and Keep Out signs posted.

A company representative will inspect the site monthly and after heavy rains to ensure that the site is secure and that the inspection and maintenance requirements of the SWPPP are being met.

5.2 Mill site. In the event that the mill should be closed for more than one month, Luxcor will take the following actions:

Ore feed to the mill will be stopped and processing of ore within the mill will be completed.

Milling equipment will be cleaned and motor control boxes locked out.

Water in the tailings pond will be pumped into the water tank.

The office/lab building will be locked.
Fuel, lubricants, reagents and mill supplies will be secured.
A watchman will be employed to prevent theft or vandalism.
Other measures required by the owner will be taken.

6.0 Reclamation Plan.

6.1 Mine Site. Reclamation of all areas disturbed will be completed to the standard described in Section 3809.1-3(d) of 43 CFR 3809⁶ and reasonable measures will be taken to prevent unnecessary or undue degradation of Federal lands during operations and reclamation. These will include restricting reclamation activities to disturbed areas (e.g. not obtaining fill or covering materials from undisturbed areas).

At the completion of mining, Luxcor and its contractor will remove all equipment, trash and debris from the site. Mining equipment, including compressor, vent fan and generator, will be contractor's property and will be removed by the contractor. The fuel tank will be supplied by the fuel vendor and will be removed by the vendor. Mobile buildings (office and shop) will be loaded on a Landoll (self-loading) trailer, and hauled from site to the leasing yard in Phoenix. The leased water tank will be loaded on a trailer by winch and hauled to the lessor's yard at Salome.

At the office/shop area, water, electrical and sewage line risers will be hand-excavated, cut off one foot below ground level (six places) and removed with other trash. The holes will be refilled. At the adit and raise, water, air and electrical lines, about 100 feet total, will be removed and hauled from site with other trash or salvage materials. An estimated 3 yards of trash and one ton of scrap metal will be loaded by hand or front-end loader into a truck for haulage to a landfill or recycler. Any oil-contaminated soil will be shoveled into drums and hauled to an approved landfill.

The adit will be closed with rock and backfill as shown in Figure IX-12, BLM *Solid Minerals Reclamation Handbook*⁷, reproduced here as Figure 30. Closure will require about 18.5 cubic yards (cy) of rock in gabions, 260 cy of common backfill and 37 cy of rock fill. Material for rock and common backfill will be obtained from the Fancher dump. Rock fill, consisting of hard quartz vein material, will be separated from the finer common backfill by passing the material over a fixed grizzly on the dump. Gabions will be filled on the surface by loader, transported 85 feet into the decline by loader and set in place. Rock to ensure a tight fit with the walls and back of the decline will be transported by loader and placed by hand.

The surface cut outside adit will be filled with approximately 650 cy of dump material using a dozer with an average push of about 100'. The fill will be contoured by dozer to

⁶ US Department of the Interior, Bureau of Land Management, Arizona State Office (1998) Regulations Pertaining to: Surface Management for Unpatented Mining Claims and Sites Situated on Land Managed by the Bureau of Land Management "43 CFR 3809"

⁷ US Dept. of the Interior, Bureau of Land Management Solid Minerals Reclamation Handbook H-3042-1, Rel. 3- 275, 4/8/92.

match the surrounding hillside. The surface of the adit will be covered with soil from the soil stockpile, using a dozer to spread the soil.

The raise will be filled with hardcore (rock) and general purpose fill as shown in Figure 1X-4, Controlled Backfill⁸, reproduced here as Figure 31. Fill will be obtained from the waste rock dump and from the Verdstone dump (if needed). The pillars in the mine supporting the back around the raise station will be blasted down, allowing the back to collapse around the bottom of the raise before the raise is filled. This will eliminate the need for a bulkhead in the workings. The fill volumes required are 184 cy of hardcore for the lower portion of the raise and 300 cy of common fill for the upper portion. Hardcore, consisting of quartz vein material, will be separated from the finer general purpose fill by passing the material over a fixed grizzly on the dump.

A front-end loader will be used to haul the fill from the dump to the raise. The haul distance from the Fancher dump to the raise is about 2000 feet, average grade including rolling resistance is about +15%. The raise collar and slab will be covered with broken basalt stockpiled on the road beyond the raise during construction. A front-end loader will be used to move about 40 cy of basalt.

The road to the adit and raise will be closed. On hillsides, side-cast material will be pulled back into the roadway to blend with the hillside. On flatter areas, the road surface will be scarified and water bars installed where needed to prevent runoff from running down the road. The road is 2500 feet long, about 1700 feet is 15 feet wide without road cut and 800 feet is 17 feet wide with a 6' high cut on the hillside. A hydraulic excavator will be used to pull about 1500 cy of material side-cast during road construction back into the roadway on the hillside portion of the road. The remaining 1700 feet of road will be ripped using a dozer with ripper to promote revegetation. Water bars will be installed as necessary to divert runoff off the road and into natural drainage.

The waste rock remaining in the dump will be flattened to a 3:1 or flatter slope using a dozer. About 4000 cy of waste rock will spread over the top of the dump to create a gently sloping surface that blends into the hillside. This surface will be covered with soil from the soil stockpile. The average push will be about 100'.

Hard-packed disturbed areas will be scarified by grader to create a seedbed. Contoured and scarified surfaces will be seeded with a BLM-approved native seed mix.

When reclamation is complete, Luxcor will notify the BLM so that an inspection of the area can be made.

The estimated cost of reclamation is \$38,300. Reclamation cost calculations are presented in Appendix H, and include dust control, contractor administration costs, contractor's bond premium, liability insurance, contractor's profit, and the BLM contract management fee.

⁸ Op Cit

6.2 Mill site. Mill site reclamation will be dictated by agreement between Luxcor and the owner of the Rio del Monte Mine, but in general will consist of removing milling equipment, cleaning up the mill site and covering the tailings with locally available fill material.

7.0 Monitoring Plan.

7.1 Wildlife. Luxcor will post photos of threatened, endangered and special status species in the mine office. Miners will be instructed to recognize, properly handle those in harm's way and avoid disturbing these species or other wildlife encountered. Sightings and injury or death of any species will be recorded and reported to the BLM.

7.2 Archaeological Sites. Archaeological sites will be marked and avoided. Luxcor will monitor operations to ensure that these sites and other artifacts that may be discovered, are not disturbed.

7.3 Surface Water Quality. Surface water quality at the mine site and mill site will be monitored as required by the SWPPPs prepared to comply with MSGP 2010.

7.4 Reclamation Success. Luxcor will inspect the mine site annually for three years following the winter rains to see if disturbed areas are revegetating and other reclamation measures need repair or modification. Should remedial work appear necessary, Luxcor will consult with the BLM Yuma Field Office to agree on methods and to obtain approval to carry out the work.

8.0 Occupancy.

The following is submitted to comply with 43 CFR 3715.2⁹. The mine facilities, office/change house unit, shop/storage unit, watchman's trailer/RV, explosives magazines, portable toilet, fuel and water tanks and mining equipment will remain on the mine site until mining is complete. Two gates will be used to discourage public access during nights, weekends and holidays. One gate is already installed on the road to the Verdstone Mine and the other will be installed on the road west of the decline.

Table 8 shows the area of BLM land to be occupied by the project.

⁹ 1996, U.S. Dept. of the Interior, Bureau of Land Management, 43CFR 3715, Use and Occupancy under the Mining Laws

TABLE 8. BLM AREA OCCUPIED BY THE PROJECT

Mine facilities	Acres	Status
Existing waste rock dump	0.4	
New waste rock dump expansion	0.09	
New pad at decline, fuel and water tanks	0.02	
New office/change house, shop/storage unit	0.17	
New sediment ponds	0.01	
New raise pad and slab	0.01	PD
New explosives magazine	0.01	PD
Access		
Hovatter Road (Yuma Co.), 20' maximum width	7.74	PD
Verdstone Road, 20' maximum width	3.14	PD
Verdstone Road (behind closed gate), 20' max width	0.78	PD
Road to decline and raise (15')	0.81	PD
Road to decline and raise widening (2')	0.11	
Reclamation		
Equipment & structures removal	0	
Mine closure	0	
Road to decline and raise closure	0	
Waste rock dump	0	
Hard packed areas	0	
Desert tortoise mitigation	1.98	PD
Total	15.25	
Total PD	14.45	
Total new disturbance	0.80	
PD = Previously disturbed and not reclaimed		

The proposed occupancy is reasonably incident to prospecting, mining and processing operations. The office/change house unit, the shop/storage unit, explosives magazines, portable toilet, fuel and water tanks and mining equipment are required for the mining operation and serve no other purpose. Because of the remoteness of the site, it would be impractical to remove facilities and equipment after each day's work and return them for the next. The watchman is needed to protect the public from mining hazards and to discourage theft and vandalism of mining equipment.

The proposed occupancy is appropriate for the planned work, constitutes actions and expenditures of labor and resources that would be made by a person of ordinary prudence to develop, mine and beneficiate a valuable mineral deposit using methods, structures and equipment appropriate to the geological terrain, mineral deposit, and stage of development and reasonably related activities.

The proposed occupancy constitutes substantially regular work that directly benefits the mineral property by providing facilities for developing the mine, mining the ore and reclaiming the site. The work is directly associated with the development of the property and the processing of the ore. The work is contemplated to be continuous until mining and reclamation are complete.

The activities proposed are reasonably calculated to lead to the extraction and beneficiation of minerals from the ore on the property. The mining equipment proposed in Section 3.3 above is sized to be adequate for developing mine and mining the ore at the proposed rate with normal equipment availability. The work of development and mining will be observable and verifiable.

Nothing proposed in this Notice will interfere with public access to adjacent public lands. Existing roads, except as indicated above, will remain open to the public.

The proposed period of occupancy is three years.

9.0 Acknowledgements.

- It is understood that should the nature of the operation change, a modified or supplemental Plan of Operations and Reclamation Plan may be required.
- It is understood that approval of this Plan of Operations and Reclamation Plan does not constitute certification of ownership to any person named herein or recognition of the validity of any mining claim herein.
- It is understood that a bond equivalent to the actual cost of performing the agreed upon reclamation measures will be required before this plan can be approved. Bonding and any bond reduction amounts will be set on a site-specific basis in coordination with cooperating agencies.
- It is understood that approval of this plan does not relieve Luxcor of the responsibility to comply with other applicable Federal or State laws, rules, or regulations.
- It is understood that any information provided with the plan that is marked confidential will be treated by the BLM in accordance its rules, and regulations.
- Luxcor agrees to comply with all Conditions in the Plan of Operations and Reclamation Plan, including recommended changes and reclamation requirements. Luxcor understands that the bond will not be released until the BLM or state agency in charge gives written approval of the reclamation work.

Signatures.

SUBMITTED BY:
LUXCOR GOLD, L.P.

_____ Date _____
Jim W. Clark, President

PREPARED BY:
MINING & ENVIRONMENTAL CONSULTANTS, INC.

Fred B. Brost, P.E., President